

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously presented) A method of treating a titanium metal implant for use in a surgical procedure, so as to form a surface layer that is integral with the metal substrate and which incorporates a biocidal material, by anodising the implant to form a surface layer and then performing ion exchange so as to incorporate ions of a biocidal metal into the surface layer, characterised in that the method comprises anodising the implant at a voltage above 50 V for a period of at least 30 minutes, so as to generate the surface layer, wherein the current density, the electrolyte concentration, the duration of anodising and the magnitude of the anodising voltage are such that the anodising generates a dense hard surface layer and also shallow pits in the surface layer which are filled with a somewhat softer and more porous material.

2. (Original) A method as claimed in claim 1 wherein the biocidal metal is silver.

3. (Previously presented) A method as claimed in claim 1 wherein the anodising step uses an electrolyte comprising phosphoric acid.

4. (Original) A method as claimed in claim 3 wherein the phosphoric acid is of concentration between 5% and 20% by weight.

5. (Previously presented) A method as claimed in claim 3 wherein the electrolyte comprises chloride ions at a concen-

tration no more than 500 ppm.

6. (New) A method as claim 1 wherein the shallow pits extend through the surface layer into the metal substrate.

7. (New) A method of treating a titanium metal implant for use in a surgical procedure, said method comprising the steps of anodizing said implant for forming a surface layer thereon, then performing a step of ion exchange for incorporating ions of a biocidal metal into said surface layer, wherein said step of anodizing said implant utilizes a voltage above 50 V for a period of at least 30 minutes for generating said surface layer, and wherein the current density, the electrolyte concentration, the duration of anodizing and the magnitude of the anodizing voltage are such that said anodizing step generates a dense hard surface layer on said metal implant and includes creating shallow pits in said surface layer which are filled with a comparably softer and more porous material.

8. (New) A method as claimed in claim 7 wherein said biocidal metal utilized during said anodizing step is comprised of silver.

9. (New) A method as claimed in claim 7 wherein said anodizing step uses an electrolyte comprising phosphoric acid.

10. (New) A method as claimed in claim 9 wherein said phosphoric acid used during said anodizing step is of a concentration between 5% and 20% by weight.

11. (New) A method as claimed in claim 9 wherein said electrolyte comprises chloride ions at a concentration no more

than 500 ppm.

12. (New) A method as defined in claim 7 wherein said step of creating shallow pits causes said shallow pits to extend through said surface layer and into said metal substrate.